

SOUTHEASTERN LOUISIANA UNIVERSITY
DEPARTMENT OF MATHEMATICS
MATH 155-161 SYLLABUS

COURSE TITLE: College Algebra

CREDIT: 155 – 5 semester hours
161 – 3 semester hours

TEXT: *College Algebra*, 8th Edition with *MyMathLab*, by Sullivan

PUBLISHER: Pearson Education

PREREQUISITES:

155: A score of 19 or above on the Mathematics section of the ACT or an appropriate score on the COMPASS exam or Math 92.

161: A score of 21 or above on the Mathematics section of the ACT.

155/161 COURSE DESCRIPTION: A study of families of functions and their graphs. Topics include linear, polynomial, rational, exponential and logarithmic functions, and systems of equations.

NOTES:

- A student may not receive credit for both MATH 155 and MATH 161.
- Additional time is allowed in 155 for students to improve their skills in algebra fundamentals, including operations with exponents, polynomial and rational expressions, factoring polynomial expressions, and solving various types of equations.
- The structure of these courses includes 2- or 3-hours of in-class instruction and 3-hours of computer laboratory work in the Math Technology Learning Centers – MTLC (Sims Library 208, Wilson 110, Fayard 122, and/or Fayard 129).

COURSE OBJECTIVES: Upon completion of this course, the student will be able to perform operations on polynomial, rational, exponential, and logarithmic functions. The student will also be able to graph these functions using techniques and information gathered about the functions, solve linear, quadratic, exponential, and logarithmic equations, and solve systems of equations. Evaluations will be based on homework, quizzes, tests, and class and lab participation.

SPECIFIC COURSE CONTENT – the section numbers in the textbook covering these topics are given after the topic:

TEST 1 Material:

Linear Equations (1.1)
Linear Inequalities (1.5)
Quadratic Equations (1.2)
Miscellaneous Equations (1.4)
Distance Between Points & Midpoints of Line Segments (2.1)
Graphing Using Intercepts and Symmetry (2.2)

TEST 2 Material:

Lines (2.3)
Functions (3.1)
Graphs of Functions (3.2)
Properties of Functions: Even/Odd, Constant/Increasing/Decreasing, Local Extrema, Avg. rate of change (3.3)
Library of Functions, Piecewise-defined Functions (3.4)
Transformations of Functions: Shifts, Compressions, Stretches, Reflections (3.5)
Linear Function Properties & Graphs (4.1)
Quadratic Functions Properties & Graphs (4.3)

TEST 3 Material:

Polynomial Function Properties & Graphs (5.1)
Rational Functions – Asymptotes (5.2)
Graphing Rational Functions (5.3)
Polynomial & Rational Inequalities (5.4)
Composite Functions (6.1)
Inverse Functions (6.2)

TEST 4 Material:

Exponential Functions (6.3)
Logarithmic Functions (6.4)
Properties of Logarithms (6.5)
Exponential & Logarithmic Equations (6.6)
Compound Interest (6.7)
Exponential Growth & Decay (6.8)

FINAL EXAM New Material:

Systems of Linear Equations (8.1)
Systems of Non-linear Equations (8.6)

CALCULATORS: A scientific calculator is required for this course. The following types of calculators are **prohibited**:

- calculators with graphing capabilities and calculators with built-in computer algebra systems
- Prohibited calculators in this category include:*
- Texas Instruments: **TI-82, TI-83, TI-84, TI-85, TI-86, TI-89 or TI-92** and the **TI-Nspire CAS**
 - Hewlett-Packard: **HP 48GII** and all model numbers that begin with **HP 40G, HP 49G, or HP 50G**
 - Casio: **Algebra fx 2.0, ClassPad 300 and ClassPad 330**, and all model numbers that begin with **CFX-9970G**
- handheld, tablet, or laptop computers, including PDAs
 - electronic writing pads or pen-input devices
 - calculators built into cell phones or any other electronic communication devices
 - calculators with a typewriter keypad (letter keys in QWERTY format)

EMAIL REQUIREMENT: All correspondence will be made through your Southeastern email account.

DISABILITY ACCESS STATEMENT: If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Room 203, Student Union. No accommodations will be granted without documentation from the Office of Disability Services.

MTLC USUAL OPERATING HOURS

Monday – Tuesday	8:00 am – 9:00 pm
Wednesday – Thursday	8:00 am – 6:00 pm
Friday	8:00 am – 3:00 pm

The MTLC is closed on any days the university is closed.

TESTING:

All testing will be done in the Mathematics Technology Learning Center in Sims Library, Room 208. Students should pay attention to notices given throughout the semester with testing sign-up information. Consult your daily schedule online for testing dates.

During testing, not all labs will be available for tutoring, homework, or quizzes. Only labs not being utilized for testing will be open. Please read Test Rules on page 2 of this syllabus for detailed information on test reservation and test taking procedures.

Final exams will be given according to the published final exam schedule for your section unless you are notified otherwise by your instructor.

COURSE GRADES: Percentages earned as follows determine the course grade.

4 Tests (10% each)	= 40% of course grade
Final Exam	= 30% of course grade
Quizzes	= 10% of course grade
Homework	= 10% of course grade
Participation	= 10% of course grade

COURSE GRADING SCALE

90% - 100%	= A
80% - 89.9%	= B
70% - 79.9%	= C
60% - 69.9%	= D
below 60%	= F

Note: 1% will be added to a student's final average if he or she scores 50% or higher on all four practice tests.

Lab hours are counted on a weekly schedule TBA by section.

You must swipe your Student ID upon every entrance and exit to the lab to receive credit for your attendance. No exceptions.

NOTE: PEAK LAB TIMES ARE EXPECTED TO BE MIDDAY.

TO AVOID WAIT TIMES, TRY TO ATTEND THE LAB AT OFF-PEAK HOURS.

HOMEWORK: Homework will be assigned for each section. Homework need not be completed in one sitting, but it must be completed before the expiration date and time. ***You must click the "Submit Homework" button in order for it to count.*** At the end of the semester, the two lowest homework scores (percentage-wise) will be dropped.

QUIZZES: There will be a quiz given approximately once a week, usually on material covered in two class periods. You will be able to submit quizzes up to 10 times (with the best score counted). These must also be completed before the expiration date and time. ***You must click the "Submit" button in order for it to count.*** At the end of the semester, the two lowest quiz scores (percentage-wise) will be dropped.

ACADEMIC INTEGRITY: Students are expected to maintain the highest standards of academic integrity. Behavior that violates these standards is not acceptable. Examples include the use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work.

MAKE-UP POLICY:

- **No makeup work on homework or quizzes will be allowed.** The two lowest quiz grades and the two lowest homework grades will be dropped at the end of the semester.
- The first test missed due to a **serious, verifiable** circumstance will be replaced with the final exam grade. Students who must miss work or tests due to official University business must make arrangements for makeup work **beforehand**. Students must take excuses to their instructors.

WORKING FROM HOME: The Math 155/161 software can be installed on a student's personal computer. Internet access and the appropriate plug-ins are required in order to use the website where the notes, homework, and exercises are found. The website for the software is <http://www.coursecompass.com>. Once you have registered in the MTLC, you will be able to login to the site from home with your login and password. Click into your course and select the **Installation Wizard** from the selection of buttons on the left hand side of the screen. Install **all** components. NOTE: Ensure that all homework and quizzes submitted from home are properly saved on the site. You should check your scores online to ensure that credit is assigned. If homework and quiz grades are not successfully sent from home for any reason and the deadline passes, the student will NOT be able to make up the work.

PARTICIPATION POLICIES:

- **Class Meetings:** Every student is **required** to attend and actively participate in two class meetings every week in the classroom listed on the schedule. The time for the class meeting is **not** counted toward your 3-hour lab work requirement.
- **Lab work:** Every student is required to work on mathematics in the MTLC for a minimum of 3 hours every week (variations due to holidays and testing will be made). **Attendance is counted on a weekly schedule determined by section.** Lab attendance each week earns you up to 15 points, determined as follows: 3 hours – 15 points, 2 hours – 10 points, 1 hour – 5 points, less than 1 hour – 0 points. Attendance will be monitored by card swipe, but it is also your responsibility to keep a record of your attendance. Your attendance score will be posted by your instructor who will receive weekly updates and can be checked on the gradebook application in *MyMathLab*. The last week of classes can be used to gain up to 10 attendance points (two hours of lab time previously missed).

MTLC RULES

1. The MTLC is a math classroom. Please be quiet during your visit to the MTLC.
2. The monitor will swipe your ID card when you enter the MTLC and swipe it when you leave, even for a short break. Do not present any ID card other than your own. No attendance credit will be given to students who do not have their ID cards.
3. Cell phones, food, drinks (including water), tobacco products, and companions are NOT allowed in the Center. A cell phone violation may cause your cell phone to be detained until you leave the MTLC. Your cell phone needs to be out of sight and turned OFF.
4. Other than mathematics, no activity such as talking, sleeping, or working on assignments for other classes is allowed in the MTLC. Any violation will cause your attendance credit to be 0 for that day, and you will be asked to leave the MTLC.
5. **While in the MTLC, you may *only* access CourseCompass.com. No other websites (URLs) are allowed (such as email or facebook).**
6. The use of a computer in the MTLC is on a first-come, first-served basis; no reservation can be made for normal course work. (Reservations **are required** for tests. Details on procedures for sign-up will be announced by your instructor.)
7. Please do not hesitate to ask questions in the MTLC. Tutors and faculty members in the MTLC are there to help you.

TEST RULES

1. There are four 75-minute tests and a 2-hour comprehensive final exam. Test dates are listed on the front page of the syllabus. Testing time blocks may begin at 8:00 am, 9:30 am, 11:00 am, 12:30 pm, 2:00 pm, 3:30 pm, and/or 5:00 pm .
2. **Test registration is required.** Information will be given out in class, and announcements will be posted in the software when test reservations are available. Every student must have some type of reserved test time to assure you can be accommodated during the two-day testing period. You may change your test time freely during open registration as long as slots are available.
3. Arrive on time for your test. Your reservation may be cancelled if you are more than 10 minutes late. Bring your ID and pencils with you to take your test. The MTLC will provide you with scratch paper. No other paper is allowed. Place all belongings on the floor beneath the table where you are sitting. Once you have entered the testing room, all review material must be put away.
4. Absolutely **no cell phones** are allowed during testing. All cell phones must be turned OFF and put away out of sight. Use of cell phones during a test will result in a charge of academic misconduct.
5. **No IPODS** may be used during tests. Use of IPODS during a test will result in a charge of academic misconduct. .
6. You may **not** write down any information pertaining to test questions to take with you when you leave the MTLC after an exam. All scratch paper will be collected before you are allowed to leave. You may not share any test information with anyone who hasn't taken the test.
7. If you fail to show up during your reserved time, you will need to reregister for another test time, if available, during the designated test days. This should be your immediate priority and should be done as soon as possible. Any change in registration is subject to availability of computers. **You may be taking a chance of not having other available testing periods if you miss your first appointment.**